蜘蛛拘蛋属(百合科)二新种

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Two new species of the Aspidistra Ker-Gawl. (Liliaceae)

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Abstract Aspidistra papillata G. Z. Li and A. huanjiangensis G. Z. Li & Y. G. Wei, two new species of Liliaceae from Guangxi, are described and illustrated. A. papillata is closely related to A. tonkinensis (Gagnep.) F. T. Wang & K. Y. Lang in having solitary flowers, campanulate perianth with the three outer lobes covering the three inner ones on both sides at base, peltate stigma with the margin 3-lobed and the top radially 3-sulcate, but different by the larger plant, thicker petiole 2.5-3.5 cm in diameter, elliptic or oblong-elliptic leaves, broadly campanulate perianth purplish outside, purple and 7-sulcate inside, grayish-white stigma densely papillate. A. huanjiangensis is similar to A. cavicola D. Fang & K. C. Yen in the plant smaller, and leaves smaller less than 14 cm long and 4.5 cm wide, but different by having leaves entire, stigma truncate on top, deeply trifurcate-lobed with the lobes bifurcate.

Key words Aspidistra, A. papillata G. Z. Li, A. huanjiangensis G. Z. Li & Y. G. Wei, new species, Guangxi, China.

摘要 报道了在广西发现的 2 个百合科蜘蛛抱蛋属 Aspidistra 新种,即乳突蜘蛛抱蛋 A. papillata G. Z. Li 和环江蜘蛛抱蛋 A. huanjiangensis G. Z. Li & Y. G. Wei。乳突蜘蛛抱蛋与大花蜘蛛抱蛋 A. tonkinensis (Gagner.) F. T. Wang & K. Y. Lang 近缘。它们的共同特征是:花单生;花被裂片两侧彼此覆盖;柱头盾状,边缘 3 裂,上表面具 3 条辐射状沟缝。不同点是:乳突蜘蛛抱蛋植株较大花蜘蛛抱蛋的粗大;叶柄较粗;叶片椭圆形或长椭圆形;花被阔钟状,花被裂片外面淡紫色,内面紫色并具 7 条沟纹;柱头表面灰白色,密布小乳状体。环江蜘蛛抱蛋与洞生蜘蛛抱蛋 A. cavicola D. Fang & K. C. Yen 相似。这两种的共同特征是:植株纤弱;叶片较小,长在 14 cm 以下,宽在 4.5 cm 以下。不同点是:环江蜘蛛抱蛋的叶无锯齿;柱头平截,边缘三叉状深裂,裂片条形,上表面具 3 条先端 2 叉状的沟槽。

关键词 蜘蛛抱蛋属;乳突蜘蛛抱蛋;环江蜘蛛抱蛋;新种;广西;中国

1999年6月,本文第一作者在广西南宁市南湖公园进行蜘蛛抱蛋属 Aspidistra Ker-Gawl.植物调研时,发现其行政办公室附近墙边有两丛长势茂盛的蜘蛛抱蛋属植物,并找到了2朵浅紫色的花,初步认定是一新种,随即采了植物标本并挖回一株移栽到桂林植物园。次年,该植株开出了4朵花,于是再次压制了标本并解剖了花。2001年又进行了观察,发现其所有形态特征并无变化,故确定该植物为新种。

1998年本文第二作者在广西环江木伦自然保护区考察时,在一处近山谷的疏林下石

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灰岩石缝中偶然发现有两丛蜘蛛抱蛋属植物小苗,并采到了1朵结构特别但不完整的小花,于是将这2株小苗引至桂林植物园种植。这些小苗也于2000年4月开出3朵小花。后来经解剖和2001年的再次观察,发现它应是蜘蛛抱蛋属的另一新种。

1 乳突蜘蛛抱蛋 新种 图1

Aspidistra papillata G. Z. Li, sp. nov. Fig. 1

Species A. tonkinensi (Gagnep.) F. T. Wang & K. Y. Lang affinis, sed plantis majoribus et robustis, petiolis crassis, 2.5-3.5 mm diam., foliorum laminis ellipticis vel oblongo-ellipticis, 18-25 cm longis, 6-8.5 cm latis, perianthio late campanulato, majore, 2.5-3 cm longo, tubo perianthii 1.3-1.7 cm longo, 2-2.4 cm diam., lobis perianthii extus purpurascentibus, intus purpureis, 7-sulcatis, stigmate facie supera cineraceo, dense papillato differt.

Rhizoma subteres, 1-1.3 cm diam., dense nodosum et squamatum, radices elongatas edens. Vaginae 3-4, 1.5-11 cm longae, basin folii amplectentes, vetustiores in fibrillas demum dissolutae. Folia solitaria, 0.5-2 cm inter se distantia, interdum 2 caespitosa; laminae ellipticae vel oblongo-ellipticae, 18 - 25 cm longae, 6 - 8.5 cm latae, apice acuminatae, basi late cuneatae vel subrotundatae interdum inaequilaterae, margine integrae; petioli crassi, 12 - 15 cm longi, 2.5 -3.5 mm diam., supra canaliculati. Pedunculus crassus, 2.5 - 5.5 cm longus, 4 - 7-bracteatus, bracteis purpurascentibus, infimis anguste ovatis 1.2-3 cm longis, 6-8 mm latis, summis ovatolanceolatis 3 - 3.5 cm longis, 2 - 2.4 cm latis, apice attenuatis. Flores solitarii, terminales. Perianthium late campanulatum, 2.5-3 cm longum, 6(-7)-fidum, lobis late ovato-triangulatis, 2seriatis, 3 exterioribus basi obtegentibus latera 3 interiorum, 1.2-1.5 cm longis, 1.4-1.6 cm latis, apice obtusis, extus purpurascentibus, purpureo-punctulatis, intus purpureis, 7-sulcatis, tubo 1.3 - 1.7 cm longo, 2 - 2.4 cm diam., extus purpureo-striato, intus purpureo. Stamina 6 (-7), basi tubi inserta, filamentis albis, circ. 2 mm longis, antheris oblongis, flavis, circ. 4 mm longis, circ. 2 mm latis. Pistillum 1.5 cm longum, ovario dilatato purpureo, stylo circ. 5 mm longo albo, articulato, stigmate dilatato, peltato, 1.3 cm diam., stamina conspicue superante, centro convexo, facie supera cineraceo, dense papillato, radiatim 3-sulcato, sulcis apice bifurcatis, dorso purpureo, margine profunde 3-lobato, lobis revolutis apice leviter 3-lobulatis, lobulis mediis majoribus. Fructus ignoti. Fl. Apr.

China. Guangxi (广西): Nanning (南宁), Nanhu Park (南湖公园), alt. 205 m, cultivated, 1999-06-18, G. Z. Li (李光照) 16885 (holotype, here designated, IBG); Guilin (桂林), Yanshan (雁山), alt. 180 m, transplanted from Nanhu Park, Nanning, 2000-06-20, Aspidistra Research Group (蜘蛛抱蛋属植物项目调查组) 069.

根状茎近圆柱形,直径 1-1.3 cm,具密节和鳞片,有多数伸长的根,叶鞘 3-4 枚,长 1.5-11 cm,紧抱着叶的基部,枯后裂成纤维状。叶单生,彼此相距 0.5-2 cm,罕有 2 枚 簇生;叶片椭圆形或长椭圆形,长 18-25 cm,宽 6-8.5 cm,先端渐尖,基部阔楔形或近圆形,两侧不等,边缘全缘;叶柄粗壮,长 12-15 cm,直径 2.5-3.5 mm,上表面具槽。花总梗粗壮,长 2.5-5.5 cm,具淡紫色苞片 4-7 枚;上部的苞片狭卵状披针形,长 3-3.5 cm,宽 2-2.4 cm,先端短渐尖。花单生,花被阔钟状,长 2.5-3 cm,6(-7)裂,裂片宽卵状三

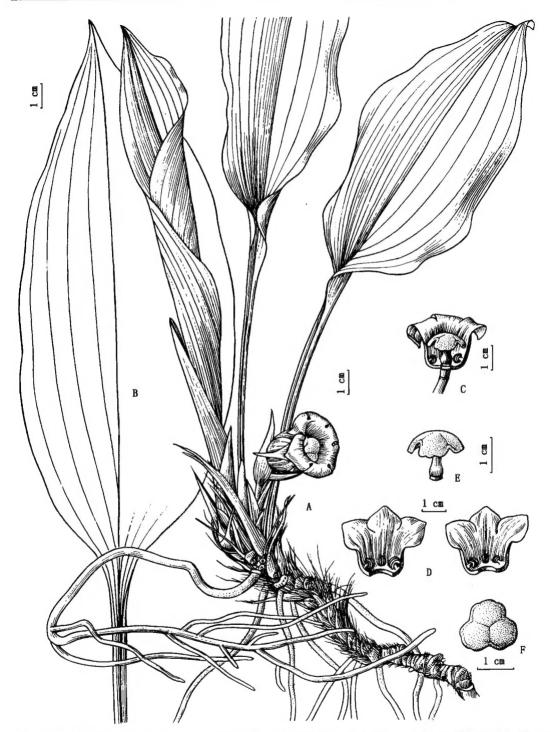


图 1 乳突蜘蛛抱蛋 A, 植株; B, 叶; C, 花被纵切面; D, 花被纵切面, 除去雌蕊; E, 雌蕊; F, 柱头上面观。(何顺清根据蜘蛛抱蛋属植物项目调查组 069 号标本绘)。

Fig. 1. Aspidistra papillata G. Z. Li. A, habit; B, leaf; C, flower, with half of perianth removed; D, vertical section of perianth, with pistil removed; E, pistil; F, stigma, viewed from top. Drawn by S. Q. He from Aspidistra Research Group 069.

角形,二轮排列,长 1.2-1.5 cm,宽 1.4-1.6 cm,先端纯,基部两侧边缘彼此互相覆盖,外侧淡紫色,具紫色小斑点,内侧紫色,具 7条沟纹;花被筒长 1.3-1.7 cm,直径 2-2.4 cm,外侧淡紫色,具紫色纵脉纹;内侧紫色;雄蕊 6 (-7),贴生于筒的基部,花丝白色,长约 2 mm,花药长圆形,黄色,长约 4 mm,宽约 2 mm;雌蕊长 1.5 cm,子房膨大,紫色;花柱长约 5 mm,白色,具关节;柱头盾状膨大,直径 1.3 cm,位置明显高于雄蕊,上表面灰白色,密布小乳突,并具 3条辐状排列且先端 2分叉的沟缝,中部稍隆起,背面紫色,边缘 3 深裂,裂片向下反卷,先端再微 3 裂,中间的小裂片较大。果实未见。花期 4 月。

本种相似于大花蜘蛛抱蛋 A. tonkinensis (Gagnep.) F. T. Wang & K. Y. Lang,但植物体较大而粗壮;叶柄较粗,直径 2.5-3.5 mm;叶片椭圆形或长椭圆形,长 18-25 cm,宽 6-8.5 cm;花被阔钟形,较大,长 2.5-3 cm,筒部长 1.3-1.7 cm,直径 2-2.4 cm;花被片外侧淡紫色,内侧紫色,具 7 条沟纹;柱头上表面灰白色,密布小乳突状体而明显不同。

本种因引种详细地点不详,故其生态环境情况无法得知。它在形态上与产于越南(谅山地区)和我国的广西(天峨)、云南(屏边)、贵州(罗甸)的大花蜘蛛抱蛋 A. tonkinensis 相似,但因其植株粗壮,花的形态和颜色不同,尤其柱头上表面密布灰白色小乳突而明显区别于后者。同时,由于它的柱头呈盾状膨大,边缘 3 浅裂,上表面具 3 条先端 2 分叉的放射状缝线等特征,在系统位置上应归入李光照等(2000)建立的蜘蛛抱蛋属分类系统中的小花蜘蛛抱蛋系 ser. Minutiflorae 中。

2 环江蜘蛛抱蛋 新种 图 2

Aspidistra huanjiangensis G. Z. Li & Y. G. Wei, sp. nov. Fig. 2

Affinis A. cavicolae D. Fang & K. C. Yen, a qua foliis integris, ovario dilatato, stigmate trinacriformi, facie supera truncato, radiatim 3-sulcato, sulcis albis apice bifurcatis, margine 3-partitis, lobis apice bifurcatis, lobulis apice rotundis differt.

Rhizoma subteres 4 – 5 mm diam., dense nodosum et squamatum. Folia solitaria, 1 – 1.5 cm inter se distantia; laminae oblongae vel ovato-oblongae, 8 – 14 cm longae, 2.5 – 4.5 cm latae, coriaceae, margine integrae, apice acuminatae, basi cuneatae, in petiolum 6 – 12 cm longum 1.5 mm crassum viridem attenuata. Pedunculus 2 – 12 mm longus, 2 mm diam., viridi-luteus, 3 – 4-bracteatus, bracteis infimis ovatis, 3 mm longis, 2.5 mm latis, summis late ovatis, 4.5 mm longis, 6 mm latis, basi perianthii adpressis. Flores solitarii, oblique ascendentes. Perianthium campanulatum, viridi-luteum vel rubellum, tubo 6.5 mm longo, 8 mm diam., intus purpureo, apice 6-fido, lobis deltoideis, 2 mm longis, 2 mm latis, erectis vel leviter reflexis, apice obtusis, margine viridiluteis, extus puncticulatis. Stamina 6, medio tubi inserta, filamentis 0.5 mm longis, antheris oblongis, flavis, circ. 1.5 mm longis. Pistillum 4.5 mm longum, purpureum, ovario dilatato, stylo 3 mm longo, articulato, stigmate trinacriformi, facie supera truncato, radiatim 3-sulcato, sulcis albis apice bifurcatis, margine 3-partito, lobis apice bifurcatis, lobulis apice rotundis. Fructus ingnoti. Fl. Apr.

China. Guangxi (广西): Guilin (桂林), Yanshan (雁山), alt. 180 m, transplanted from Huanjiang Natural Reserve (环江自然保护区), 2000-04-20, Aspidistra Research Group (蜘蛛抱蛋属植物项目调查组) 075 (holotype, here designated, IBG), 076.

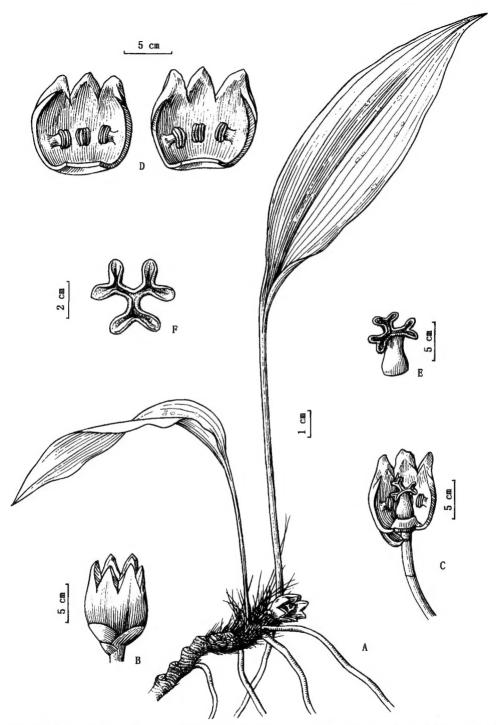


图 2 环江蜘蛛抱蛋 A, 植株; B, 花; C, 花被纵切面; D, 花被纵切面,除去雌蕊; E, 雌蕊; F, 柱头上面观。(何顺清根据蜘蛛抱蛋属植物项目调查组075号标本绘。)

Fig. 2. Aspidistra huanjiangensis G. Z. Li & Y. G. Wei A, habit; B, flower; C, flower, with half of perianth removed; D, vertical section of perianth, with pistil removed; E, pistil; F, stigma, viewed from top. Drawn by S. Q. He from Aspidistra Research Group 075.

根状茎匍匐,近圆形,直径 4-5 mm,有密节和鳞片。叶单生,彼此相距 1-1.5 cm,叶片长圆形或卵状长圆形,长 8-14 cm,宽 2.5-4.5 cm,革质,边缘全缘,先端渐尖,基部楔形,渐狭成柄;叶柄长 6-12 cm,直径约 1.5 mm,绿色。总花梗长 2-12 mm,直径 2 mm,黄绿色,具 3-4 枚苞片,下部的苞片卵形,长 3 mm,宽 2.5 mm,上部的苞片宽卵形,长 4.5 mm,宽 6 mm,紧贴花被。花单生,斜展;花被钟状,黄绿色至粉红色,筒部长 6.5 mm,直径 8 mm,内侧紫黑色,上部 6 裂;裂片三角形,长与宽均为 2 mm,直立或微外折,先端钝,两侧绿色,外侧具小紫斑点;雄蕊 6,着生于花被筒的中部,具短柄,柄长 0.5 mm,花药长圆形,黄色,长约 1.5 mm;雌蕊长 4.5 mm,深紫色,子房膨大,花柱长 3 mm,具关节,柱头三叉状,上表面平截,具三条白色、先端二分叉并相交成放射状的沟槽,边缘条状三深裂,裂片先端再条状二深裂,小裂片先端圆钝。果实未见。花期 4 月中旬。

本种外形似洞生蜘蛛抱蛋 A. cavicola D. Fang & K. C. Yen,但本种的叶全缘;子房膨大;柱头三叉状,上表面平截,具 3 条白色、先端二分叉并相交成放射状的沟槽,边缘条状三深裂,裂片先端再条状二深裂,末回裂片先端圆钝,可以明显区别。

环江蜘蛛抱蛋 A. huanjiangensis 采于广西环江的木伦自然保护区的山谷疏林下石灰岩石缝中。该保护区地处东经 107°54′01″ – 108°05′51″、北纬 25°07′01″ – 25°12′22″。本种是较典型的石灰岩石山植物,其形态与产于广西凤山袍里石灰岩岩洞的洞生蜘蛛抱蛋 A. cavicola 相似。但本种叶缘无锯齿,柱头平截、边缘三叉状深裂、条片条形、上表面具 3 条二叉状沟槽而与后者不同。此外,因本种柱头的上述结构也明显区别于蜘蛛抱蛋属的其他各系的柱头,因此我们根据本种建立了一个新系,即环江蜘蛛抱蛋系 ser. Huanjiangenses G. Z. Li (李光照,唐赛春, 2002)。遗憾的是,由于种种原因,本种未能在该新系发表之前或与该新系同时发表。

参考文献

- Li G-Z (李光照), Lang K-Y (郎楷永), Wang R-X (王任翔), Wei Y-G (韦毅刚). 2000. On the trends of morphological differentiation and a new system of classification in Chinese *Aspidistra* Ker-Gawl. (Liliaceae). Guihaia (广西植物) 20: 201 217.
- Li G-Z (李光照), Tang S-C (唐赛春). 2002. New taxa of Aspidistra Ker-Gawl. from Guangxi, China. Guihaia (广西植物) 22: 289 291.